

KHOMULG, P.S.

Changes in the cholesterol and lipoproteins content of the blood following a lasting functional stress of the central nervous system in dogs. Biul. eksp. biol. i med. 58 no. 10: 44-47 0 '64.  
(MIRA 18:12)

1. Kafedra patologicheskoy fiziologii (zav. - prof. N.T. Shutova)  
Leningradskogo pediatricheskogo meditsinskogo instituta. Submitted January 8, 1963.

SHUGAYEVSKAYA, O.V.; KHOMULLO, A.S.

On one method for separation of spores and pollen from  
rocks. Paleont. zhur. no.3:133-137 '65. (MIRA 18:9)

1. Dal'nevostochnyy geologicheskoy institut Sibirskogo  
otdeleniya AN SSSR.

KHOMULLO, G. V. i VOYTKEVICH, A. A.

19839 KHOMULLO, G. V. i VOYTKEVICH, A. A., Vegetativnaya nasleduemost' izmenennogo formoobrazovaniy u zhivotnogo organizma. Zhurnal obshchey biologii, 1949, No. 3, s. 191-99. — Bibliogki Snazv.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, MOSKVA, 1949.

Wojtkiewicz, A. A., Khomullo, G. V., Naumenko, E.

Further data on vegetative heredity in modified forms of the animal organism, Zh. obsh. biol. 11:3, May-June 50. p. 218-28

1. Department of General Biology, Kazakh Medical Institute named V. M. Molotov.

GLML 19, 5, Nov., 1950

KHOMULIO G. V.

State med. Inst., Kazakh. "Structural development in the skin in regeneration under conditions of different levels of metabolism. (Russian text) Doklady AKAD, NAUK SSSR 1953, 90 (313-316)

The regeneration of skin damage in rats that received thyroidin (10 mg. daily) methylthiouracil (20 mg.), thyroidin and methylthiouracil, or sulphanridine (40 mg.) was examined. Animals with lowered general metabolism showed slow regeneration and tissue restoration. Animals receiving thyroidin showed enhanced metabolism and more rapid healing and tissue regeneration with small scar formation. Generally, antithyroid substances hindered tissue regeneration. Kosolaroff, (Chem Abstr.) (11, 5)

SO: Excerpta Medica Section V, Vol. 7, No. 11

**KHOMULLO, G.V.**

**USSR/ Medicine - Physiology**

**Card** 1/1 : Pub. 22 - 47/49

**Authors** : Khomullo, G. V.

**Title** : Histo-and cytological changes in a wound during different levels of basic metabolism

**Periodical** : Dok. AN SSSR 98/4, 685-688, Oct. 1, 1954

**Abstract** : The effect of the thyroid gland hormone on the healing of wounds caused by injury of the integument, was investigated. A study of the local histo-cytological changes in the wound was carried out in connection with the common phenomena which occur in the organism in conditions of different thyroid hormone content. The results obtained are described in detail. Eleven USSR references (1925-1950). Table; illustrations.

**Institution** : The V. M. Molotov Medical Institute, Alma-Ata, Kaz-SSR

**Presented by** : Academician A. I. Abrikosov, June 2, 1954

VOYTEKOVICH, A.A.; SIDORKINA, M.Ya.; KHOMULLO, G.V.; GORDINA, S.M.;  
MUNAYBASOVA, G.A.; TUKAYEVA, S.A.; NIKOVSKAYA, A.V.; SMIRNOV,  
Ye.P. (Alma-Ata)

Role of the thyroid hormone in the activity of the macrophage  
system. Probl. endokr. i gorm. 1 no.2:20-25 Mr-Apr '55 (MLRA 8:10)

1. Iz Kazakhskogo meditsinskogo instituta imeni V.M. Molotova i  
Voronezhskogo meditsinskogo instituta.

(MACROPHAGES, effect of drugs on,  
thyroxin)

(THYROXIN, effects,  
on macrophages)

Khomullo, G.V.

MD ✓ Effect of hormones of hypophysis-thyroid complex on regeneration of the thyroid gland. A. A. Voltkevich and G. V. Khomullo. *Doklady Akad. Nauk S.S.S.R.* 103, 1123-6 (1959).—White rats or guinea pigs treated with thyroid (human or cattle) and hypophyseal preps. after removal of the frontal part of thyroid gland were examd. The administration of the preps. was begun 10 days before the operation. Tissue photographs of the regenerating tissues are shown. Methylthiouracil prevented the regeneration; all other animals showed regeneration ability. Hypophyseal preps. stimulated regeneration; those made from the basophilic zone were more effective than those from eosinophilic zone of the hypophysis. ①

G. M. Kosolapoff



KHOMULLO, G.V.

Healing of wounds in animals with different typological characteristics  
of the nervous system. Nauch. trudy Kal. otd. MOIP no. 2:135-145 '60.  
(MIRA 14:10)

(WOUNDS)

(CEREBRAL CORTEX)

KHOMULLO, G.V.

Changes in the basal metabolism of animals during regeneration  
due to different functional states of the central nervous system.  
Nauch. trudy Kal. otd. MOIP no.2:147-161 '60. (MIRA 14:10)  
(WOUNDS) (METABOLISM) (CEREBRAL CORTEX)  
(THYROID GLAND)

KHOMULLO, G.V.

Cytological picture of wound exudate during functional shifts of  
fundamental nervous processes. Nauch. trudy Kal. otd. MOIP no.2:  
162-168 '60. (MIRA 14:10)  
(WOUNDS) (THYROIDIN) (CEREBRAL CORTEX)

KHOMULLO, G.V.

Bone tissue regeneration in animals at various basal metabolism levels. Biul. eksp. biol. i med. 53 no.2:97-101 F '62. (MIRA 15:3)

1. Iz kafedry obshchey biologii (zav. - dotsent G.V. Khomullo) Khar'kovskogo meditsinskogo instituta (dir. - dotsent A.N. Kuznetsov) Predstavlena deystvitel'nyy chlenom AMN SSSR N.A. Krayevskiy).

(BONE) (REGENERATION (BIOLOGY)) (BASAL METABOLISM)

KHOMULIO, G.V.

Regeneration of osseous tissues under the influence of phenamine and barbamil. Dokl. AN SSSR 160 no.4:968-971 F '65.

(MIRA 18:2)

1. Kalininskiy gosudarstvennyy meditsinskiy institut. Submitted May 21, 1964.

KHOMULLO, G.V.; GRIBANOV, G.A.

Microstructural and functional changes in the thyroid gland following  
C avitaminosis. Dokl. AN SSSR 161 no.1:253-255 Mr '65.

(MIRA 18:3)

1. Kalininskiy gosudarstvennyy meditsinskiy institut. Submitted May  
21, 1964.

KHOMULLO, G.V.; TITOV, V.N.

Morphological functional changes in some endocrine organs  
under the influence of dicoline. Probl. endok. i gorm. 11  
no.2:89-93 Mr-Ap '65. (MIRA 18:7)

1. Kafedra obshchey biologii (zav. - dotsent G.V.Khomullo) i  
kafedra gospiatal'noy terapii (zav. - prof. I.B.Shulutko)  
Kalininskogo meditsinskogo instituta.

L 41085-66

ACC NR: AR6008634 (N)

SOURCE CODE: UR/0397/65/000/019/0009/0009

AUTHOR: Khomullo, G. V.

15  
B

TITLE: Skin tissue respiration change in regenerating tissues with amphetamine and sodium amytal administration

SOURCE: Ref. zh. Farmakologiya. Toksikologiya, Abs. 19.54.58

REF SOURCE: Sb. Vopr. enzimopatologii. M., Meditsina, 1964, 182-190

TOPIC TAGS: wound, skin physiology, tissue physiology, biologic respiration, drug effect

ABSTRACT: In experiments on rats the effect of amphetamine (0.1 mg daily) and sodium amytal (10 mg daily) on skin tissue respiration was investigated in regenerating tissues following infliction of wounds. Under the influence of amphetamine the intensity of tissue respiration increased during all stages of wound healing and the healing process was accelerated. Sodium amytal sharply reduced the intensity of tissue respiration; intensity was particularly low during the first half of wound surface healing. Under the influence of sodium amytal the restorative process in the regenerating skin was considerably inhibited during the initial period. M. Zabolotskaya. [Translation of abstract].

SUB CODE: 06

Cord 1/1 *hdk*

UDC: 615.78



KHOMULLO, M. I.

1-5319. Effect of inhibition of nervous system on extent of inflammatory reaction due to introduction of BCG vaccine. E. J. Kleytman and M. I. Khomullo Trud. Tomsk Inst. Vektin, 1955, 6, 279-282; *Russk. Zh. Biot.*, 1956, Abstr. No. 48327. Guinea pigs subjected to veronal, pentothal or urethane anaesthesia were inoculated subcut. with the BCG vaccine; alternatively the inoculation was done in the zone of local novocaine anaesthesia. Control animals developed large abscesses at the point of inoculation, which persisted for 20-40 days. This was also an enlargement of the local lymph gland. In the anaesthetised animals abscesses developed more infrequently, disappeared more rapidly and the local inflammatory reaction was less intense. (Russian)

N. DE W. VRIJEN

KHOMULLO, M.I.; NAUMOVA, Ye.S.; BYSTRITSKAYA, T.I.

Etiological picture of bacterial dysentery in the City of  
Tomsk. Trudy Tom NIIVS 12:132-135 '60 (MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i  
syvorotok.

\*

KHOMULLO, M.I.; BYSTRITSKAYA, T.I.

Sensitivity of dysentery bacteria to streptomycin, levomycin  
and biomycin. Trudy Tom NIIVS 12:136-139 '60 (MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i sy-  
vorotok.

\*

KULIKOV, L.D.; KHOMULLQ, N.K.

Testing the "Sikhali" flotation machine at the Kirovgrad Plant.  
TSvet. met. 34 no.1:12-15 Ja '61. (MIRA 17:3)

KULIKOV, L.D.; POPOV, S.I.; KHOMULLO, N.K.

Technology of treating impregnated sulfide ores from the Levikha and  
Lomovo deposits. TSvet. met. 36 no.12:72-73 D '63. (MIRA 17:2)

KULIKOV, L.D.; KHOMULLO, N.K.

Increasing the completeness and the complexity of ore utilization  
at the Kirovgrad Ore Dressing Plant. TSvet. met. 35 no.3:  
82-84 Mr '62. (MIRA 15:4)  
(Kirovgrad (Sverdlovsk Province)—Ore dressing)

KULIKOV, L.D.; BOLKOV, D.A.; POPOV, S.I.; KHOMULLO, N.K.

Selecting a flow sheet for the dressing of Gay deposit ores.  
TSvet. met. 36 no. 6:1-2 Jan '63. (MIRA 16:7)

(Gay Region—Nonferrous metals)  
(Ore dressing)

MELEKHOVA, Ye.L.; KULIKOV, L.D.; POPOV, S.I.; KHOMULLO, N.K.

Comparative testing of "Mekhanobr" and "Sikhali" flotation machines  
at the Kirovgrad plant. TSvet. met. 36 no.9:14-16 S '63.  
(MIRA 16:10)



KHOMULLO, V.

~~Desert will bloom. IUn. nat. no.5:4-5 My '58. (MIRA 11:5)~~  
(Sary-Ishik-Otrau--Description and travel)

KHOMULLO, Valeriy Georgiyevich; ALBINA, N.M., red.; ZLOBIN, M.V., tekhn.red.

[Routes to Issyk-Kul' Lake] K ozeru Issyk-Kul'. Alma-Ata, Kazakhskoe gos.izd-vo, 1956. 18 p. (Turistskie marshruty po Kazakhstanu, 5) (MIRA 10:12)  
(Kazakhstan--Description and travel)

KHOMULO, P. S.

"Changes in the Reflex Activity of the Higher Divisions of the Central Nervous System During Experimental Fever." Cand Med Sci, Inst Experimental Medicine, Acad Med Sci USSR, Leningrad, 1954. (RZhBiol, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

*KHOMULO, P. S*

T

USSR/Human and Animal Physiology. Thermoregulation.

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 93060.

Author : Khomulo, P.S.

Inst :

Title : Changes in Reflex Activities of Animals with Experimentally Induced Fever.

Orig Pub: V sb.: Fiziol. mekhanizmy lihoradochi. reaktsii, L., Medgiz, 1957, 285-299.

Abstract: A reflex inhibition of respiration was produced in rabbits by irritation of the mucous membrane of the nose with concentrated CO<sub>2</sub> (50 ml). The conditioned reflex was a metronome. B. mesentericus (1 ml/kg in the vein) was applied as the pyrogen (P). During the temperature elevation an increase was noted in the duration of the non-conditioned inhibition of respira-

Card : 1/3

27

*KHOMULO P. S.*

Country : USSR  
Category= : Human and Animal Physiology, The Nervous System

Abs. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8497

Author : Khomulo, P.S.

Institut. : ---

Title : The Importance of the Cerebral Cortex and Subcortical Centers in Regulating the Level of Blood Cholesterol. Report I. The Change in

Orig. Pub. : Blood Cholesterol Levels Associated with a Conditioned Response to Inhibition of Breathing in the Rabbit.

Abstract : Byul. eksperim. biol. i med., 1957, 43, No. 6, 18--23

A conditioned reflex of inhibition of respiration was established in rabbits to metronome beats reinforced by stimulation of the nasal mucosa with CO<sub>2</sub>. During the formation and reinforcement of the conditioned reflex, a reduction was observed in the cholesterol level of the serum to 25--30 (80%). A cholesterol load (0.5 gm daily) during the time the reflex was being established did not lead to the hypercholesterolemia seen in the control. Both in

Card:

1/2

Category : Human and Animal Physiology, The Nervous System  
Abs. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8497  
Author : 1. Iz kafedry patologicheskoy fiziologii (sav. - prof. N.T.Shutova)  
Pediatricheskogo meditsinskogo instituta, Leningrad. Predstavlena  
deystvitel'nyy chlenom AMN SSSR prof. P.S.Kupalovya.

Orig Pub. :

Abstract : the control and experimental animals, however,  
a primary vascular lipoidosis was detected, a  
fact which attests to the possibility of its  
arising in the face of normal blood cholesterol  
levels under conditions in which there is an  
alteration of nervous regulation of cholesterol  
metabolism.--R.M.Meshcherskiy

Card: 2/2

KHOMULO, P.S.; LEVIN, E.A.

Densitometer with automatic recording of the optical density curve.  
Fiziol.shur. 46 no.8:1024-1027 Ag '60. (MIRA 13:8)

1. From the Chair of pathological physiology, Paediatric Institute,  
Leningrad.

(PROTEINS—ANALYSIS)

(DENSITOMETERS)

KHOMULO, P.S. (Leningrad)

Changes in the protein-lipoid composition of the blood serum in rabbits under strained conditioned-reflex activity. Pat.fiziol. i eksp.terap. 4 no.4:67-74 JI-Ag '60. (MIRA 14:5)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. N.T.Shutova)  
Leningradskogo pediatricheskogo meditsinskogo instituta.  
(CONDITIONED RESPONSE) (BLOOD PROTEINS)  
(LIPIDS)



KHOMULO, P.S.

Significance of prolonged functional tension of the nervous system in the development of lipoidosis of the aorta and lesions of the myocardium in rabbits. Biul. eksp. biol. i med. 51 no.5:39-41 My '61. (MIRA 14:8)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. N.T.Shutova) Leningradskogo pediatricheskogo meditsinskogo instituta. Predstavlena akademikom N.N.Anichkovym.

(HEART--DISEASES)  
(LIPIDOSIS)

(AORTA--DISEASES)  
(STRESS)

KHOMULO, P.S.

Significance of prolonged functional stress of the central nervous system in the development of arteriosclerosis in dogs. Dokl. AN SSSR 152 no.3:727-729 S '63. (MIRA 16:12)

1. Leningradskiy pediatricheskiy meditsinskiy institut.  
Predstavleno akademikom N.N.Anichkovym.

X

KHOMULO, P.S.

Atherosclerosis in young dogs induced by a prolonged functional stress of the central nervous system. Dokl. AN SSSR 156 no. 4: 976-978 Je '64. (MIRA 17:6)

1. Leningradskiy pediatricheskiy meditsinskiy institut.  
Predstavleno akademikom N.N.Anichkovym.

L 25166-65

ACCESSION NR: AP5005774

S/0219/64/058/010/0044/0047

AUTHOR: Khomulo, P. S.

TITLE: Changes in the cholesterol and lipoprotein content in the blood of dogs during prolonged functional strain on the central nervous system <sup>B</sup>

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 58, no. 10, 1964, 44-47

TOPIC TAGS: animal physiology, blood, nervous system

Abstract: Prolonged (25 month) functional strain on the central nervous system of dogs resulted in a decline in the cholesterol content of the blood and a rise in the content of beta-lipoprotein and neutral fats. Cholesterol in the blood increased during rest periods (7-21 days) and the content of cholesterol, beta-lipoprotein and neutral fats approached their initial levels only after a 30-90-day rest. It is concluded that resting after prolonged work and work after prolonged rest are important in the development of disturbances in cholesterol metabolism. Orig. art. has 1 figure and 1 table.

ASSOCIATION: Kafedra patologicheskoy fiziologii, Leningradskiy pediatricheskiy

Card 1/2

L 25166-65

ACCESSION NR: AF5005774

meditsinskiy institut (Department of Pathological Physiology, Leningrad Institute  
of Pediatric Medicine)

SUBMITTED: 08Jan63

ENCL: 00

SUB CODE: LS

NO REF SOV: 008

OTHER: 005

JPRS

Card 2/2

MA KHOMUSKO, F. A.

\*The Welding of LZ43 [Bronze Containing Iron and Manganese]. F. A. Khomusko (*Khim. Mashinostroyeniye (Chem. Plant Construction)*, 1940, 8, (3), 19-21; *Chem. Zvest.*, 1940, 111, (11), 3009).—[In Russian.] Investigations were carried out to determine the most suitable welding conditions for an alloy of the composition (in %): copper 67.77-68.52, zinc 30.16-30.7, iron 0.50-0.72, manganese 0.54, tin 0.00-0.01, aluminium 0.13-0.54. Before oxy-acetylene welding, the alloy was pickled in 5-10% HNO<sub>3</sub> and then washed with hot water. Fluxes and a "standard flux" (composition not given) were used as fluxes. The welds were examined mechanically, chemically, and metallographically.

1943

**KHOMUS'KO, P.A.**

**Effect of silicon on the mechanical properties of the metal of a  
single layer seam in flux welding. Avtom.svar. 6 no.5:67-72 8-0 '53.  
(MLRA 7:11)**

- 1. Institut elektrosvarki im. Ye.O.Patona Akademii nauk USSR.  
(Steel alloys) (Electric welding)**

KHOMUS'KO, F.A.; MAKAROVA, M.N.

Increasing the strength of blooming mill cutters by means of hard facing. Avtom.svar. 10 no.4:87-90 J1-Ag '57. (MIRA 10:10)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O.Patona Akademii nauk USSR (for Khomus'ko).
  2. Magnitogorskiy metallurgicheskiy kombinat (for Makarova).
- (Cutting tools) (Hard facing)



KHOMUS'KO, F.A.

Automatic built-up welding with use of band electrodes. Avtom. svar.  
10 no.5:71-76 S-O '57. (MIRA 10:12)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.  
Patona AN USSR.

(Electric welding) (Electrodes)

AUTHOR: Khomus'ko, F.A. SOV/125-58-12-4/13

TITLE: Some Problems in the Technology of Welding-On ~~Techniques~~ With a Strip Electrode (Nekotoryye voprosy tekhnologii naplavki lentoch-nym elektrodom)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 12, pp 28-34 (USSR)

ABSTRACT: The experiments (described in detail) have demonstrated the feasibility of d-c and a-c welding-on with KH05 and 50KhFA grade steel strip electrodes. The admissible angles of the inclination of surfaces being welded with strip electrodes, was determined.

ASSOCIATION: There are 8 photos, 3 tables and 1 Soviet reference. Institut elektrosvarki imeni Ye.O. Patona (The Institute of Electric Welding imeni Ye.O. Paton)

SUBMITTED: September 17, 1958

Card 1/1

11.1400  
25(1)

67865

SOV/125-60-1-8/18

AUTHOR:

Khomus'ko, F.A. and Rabotnov, B.A.

TITLE:

Automatic Electrode - Band Coating<sup>6</sup> of the Blades of  
an Adjustable Blade Hydroturbine

PERIODICAL:

Avtomaticheskaya svarka, 1960, Nr 1, pp 62-71 (USSR)

ABSTRACT:

Detailed information is given on a new method of coating adjustable turbine blades<sup>6</sup> with a protective surface layer applied by flux welding.<sup>6</sup> The method was developed after the inspection of 14 hydroelectric plants using such turbines and experimental work carried out by the Institute of Electric Welding imeni Ye.O. Paton and the Leningrad Metal Plant. "IKh18N9T" electrode band steel 0.15-0.40 mm thick and 70 mm wide (which provides reliable protection against cavitation) and pumiceous "AN-26" flux produced at the Zaporozhskiy stekol'nyy zavod (Zaporozh'-ye Glass Plant) were used. The Institute of Electric Welding developed a special welding tractor for this

Card 1/4

4

67865

SOV/125-60-1-8/18

Automatic Electrode - Band Coating of the Blades of an Adjustable  
Blade Hydroturbine

purpose [Ref 27], but its low operational speed resulted in its replacement by a suspended welder and special tilter. The article gives detailed information on the welding process and the sequence of coating. The composition of the band was non-homogeneous, and in some parts cracks appeared in the surfacing layer. The band was analyzed and the results are shown in table 1, that shows that when the ratio of chromium to nickel content was 1.9 and more there were no cracks. The experimental turbine blade (Figure 6) was made of "20GSL" steel. According to "GOST" norms, "1Kh18N9T" steel must contain not less than 17% of chromium and not more than 11% of nickel. For this reason it was necessary to find a flux that would ensure the absence of cracks at any ratio of chromium-nickel content within the "GOST" norms. Experiments were conducted with the following materials: a "1Kh18N9T" ✓

Card 2/4

67865

SOV/125-60-1-8/18

Automatic Electrode - Band Coating of the Blades of an Adjustable  
Blade Hydroturbine

steel band, pumiceous "AN-26" flux of the following composition: 32.44%  $\text{SiO}_2$ ; 21.4%  $\text{Al}_2\text{O}_3$ ; 8.1%  $\text{CaO}$ ; 15.9%  $\text{MgO}$ ; 3.96%  $\text{MnO}$ ; 19.05%  $\text{CaF}_2$ ; <sup>23</sup> 19.05% of  $\text{CaF}_2$  alloy, consisting approximately of 80 to 85% Al and 20% iron. The experimental blade for the Bratskaya GES (Bratsk GES) was coated with the use of "AN-26" flux with 2.5-3% of " $\text{CaF}_2$ " alloy. No cracks formed, which means that "AN-26"<sup>2</sup> flux with this additive can be recommended. It has been decided to design a special device for the automatic surfacing of blades of adjustable blade-type hydroturbines. The Institute of Electric Welding has already started this work. V.S. Shirin, Chief Mechanic of the Laboratory of the Institute, and V.M. Vasyukov, a technician in the welding department of LMZ, took part in the experimental welding. Metallographic investigations were conducted in the laboratory of LMZ with the partici-

Card 3/4

4

67865

SOV/125-60-1-8/18

Automatic Electrode - Band Coating of the Blades of an Adjustable  
Blade Hydroturbine

pation of engineer O.L. Damaskina. V.A. Lapchenko,  
senior designer of the Institute of Electric Welding,  
designed the welding nozzle for a thin band electrode.  
It has riffled rollers to stiffen the band by corruga-  
tion. E.Yu. Yuganson carried out the experiments with  
the "CaF<sub>2</sub>" alloy as flux additive. There are 6 photo-  
graphs, 4 diagrams, 3 tables, and 4 Soviet references.

ASSOCIATION:

Ordена Trudovogo Krasnogo Znameni Institut elektrosvarki  
im. Ye.O. Patona AN USSR (Order of the Red Banner of  
Labor Institute of Electric Welding imeni Ye.O. Paton  
AS UkrSSR) (F.A. Khomus'ko). Dvazhdy Ordena Lenina  
Leningradskiy metallicheskiy zavod im. Stalina. (Twice  
Order of Lenin Leningrad Metal Plant imeni Stalin).  
(B.A. Rabotnov) ✓

SUBMITTED:  
Card 4/4

September 8, 1959

3/125/60/000/012/010/014  
A161/A030

AUTHORS: Khomus'ko, F.A.; Rabontsov, B.A.

TITLE: Automatic Surfacing of Radial-Axial Flow Turbine Blades with Tape Electrode Under Flux

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 12, pp. 71 - 74

TEXT: The Leningrad Metal Plant produces turbines for the Bratskaya GES (Bratsk Hydroelectric Power Plant) (Fig. 1) having 14 blades. The material is low-alloy 20/CJ (20GSL) steel; weight of the first trial turbine wheel is 110 tons, each blade weighs 1.8 tons. Wheels have to be made in two parts for transportation. The blade portions in contact with the bottom wheel rim will be more subject to cavitation in operation than the free surface, and the protective coating was applied not on the entire blades surface but on spots: 15 blades were surfaced (one for experiment, and 14 for the first wheel). A manipulator and a motor welder ("tractor") were made especially for the surfacing job; the motor welder was described previously (Ref. 1) (F.A. Khomus'ko, "Avtomaticheskaya svar-ka", No. 12, 1958). No description of the manipulator and welder is included. The surfacing material was 1X18N9T (1Kh18N9T) steel 0.18 - 0.20 x 70 mm tape; ✓

Card 1/6

S/125/60/000/012/010/014  
A161/A030

## Automatic Surfacing of Radial-Axial Flow Turbine Blades with Tape Electrode Under Flux ✓

two superimposed tapes were used in view of the thinness. The AH -26 (AN-26) flux (the composition is not given) gave austenite metal structure and cracks by creating unfavorable nickel and chromium content relation, but this trouble was eliminated by addition of crushed aluminum-iron alloy (Fig. 2, photomicrographs). The ferrite component quantity grows in the coating with increasing aluminum-iron alloy addition, but it is not advisable to add more than 3.5% because the removal of the slag crust is too difficult. The coating was applied in beads parallel to the blade edge; plates were tack-welded under the blade edge to retain the flux layer and prevent slag and metal from spilling. Good beads were obtained with 650 - 700 amp. 28 - 32 volt arc, 9.4 m/hr welding speed, 30 - 35 mm tape electrode throat, overlapping each previous bead over 10 - 14 mm with each following (i.e., with the 70 mm wide tape). The mean coating depth was 5 mm. The coated surface on each blade was 1 m<sup>2</sup>, and the coating of one blade took 8 - 10 hours. It was decided to replace the motor welder by a different and special piece of apparatus, for it took too much time to set it accurately for every following pass. With the special apparatus and improved manipulator the coating

Card 2/6



3/125/60/000/012/010/014  
A161/A030

Automatic Surfacing of Radial-Axial Flow Turbine Blades with Tape Electrode Under Flux

of one blade takes an average of 2.5 h. (The special apparatus is not described). Ready coated and ground blades are shown in photograph (Fig. 3). W.S. Shirin, V.D. Averin and V.M. Vasyukov took part in the surfacing. The coating method will be used for other large parts of water turbines. There are 3 figures and 3 Soviet references.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" imeni Ye.O. Paton of the AS UkrSSR), F.A. Khomus'ko; Dvazhdy ordena Lenina Leningradskiy metallicheskiy zavod imeni Stalina (Leningrad Metal Plant "Twice Lenin Order" imeni Stalin), B.A. Rabotnov

SUBMITTED: March 25, 1960

Card 3/ 6

20/00

S/125/61/000/005/003/016

A161/A127

7.2300

AUTHOR: Khomus'ko, F. A.

TITLE: Mechanized building-up of a high-hardness steel layer

PERIODICAL: Avtomaticheskaya svarka, no. 5, 1961, 24 - 29

TEXT: The article presents results of experiments with a new especially composed Cr-W steel coating: 1.10 - 1.30% C, 0.40 - 0.60% Cr, 14 - 16% W, 0.30 - 0.50% Mn,  $\leq$  0.40% Si. The composition has been chosen experimentally and called X815 (KhV15). The coating metal was alloyed using a powder wire consisting of cold-rolled low-carbon steel band 0.6 x 15 mm in size, ground ferroalloys, graphite, powder iron and sodium silicofluoride. The latter is intended to prevent porosity. Information on this wire had been published formerly [Ref. 1: I. I. Frumin, Legirovaniye naplavlennogo metalla pri iznosostoykoy naplavke (Alloying the built-up metal in wear-resistant hard facing), Izd-vo AN USSR, 1957]. The composition of metal in the top layer of four or five layers deposited on the laboratory specimens was the following: 1.10 - 1.30% C, 0.30 - 0.40% Mn, 0.10 - 0.30% Si, 0.35 - 0.50% Cr, 15 - 17% W. Low-silicon Al-30 (AN-30) flux was tried without success, but the metal hardfaced with pumiceous 48-06-6 (48-OF-6) flux developed by Yu. D.

Card 1/3

Mechanized building-up of a high-hardness steel layer

26786  
S/125/61/000/005/003/016  
A161/A127

Brusnitsyn [Ref. 2; Yu. D. Brusnitsyn, "Avtom. svarka", no. 4, 1957] was satisfactory. After the laboratory experiments, hardfacing of KhV15 steel was applied to 18 rolls of an electric tube-welding machine at Dnepropetrovskiy truboprokatnyy zavod im. Lenina (Dnepropetrovsk Tube Rolling Plant im. Lenin). The article includes detailed data on the welding process parameters and heat treatment used under laboratory and shop conditions, photo-micrographs of the build-up metal and the composition of chips removed for analysis from the hardfaced rolls. The rolls in one stand of the tube welding machine were still good after the rolling of 17119.3 ton tubes. Inferior results with a few other rolls are supposed to be due to faulty hardening and fine porosity that was left unnoticed. Conclusions: 1) Mechanized hardfacing with KhV15 type steel produces a built-up surface without cracks or any other flaws, with up to 67 RC hardness after heat treatment; 2) Optimum heat-treatment process conditions have been found for KhV15 coating; 3) Hardfacing has been tested under shop conditions, and the wear resistance of built-up parts verified in service. The author expresses gratitude to Engineer A. V. Mel'nik for his assistance in hardfacing at the im. Lenin plant. There are 4 figures, 2 tables and 2 Soviet-bloc references.

Card 2/3

Mechanized building-up of a high-hardness steel layer

20/00  
S/125/61/000/005/003/016  
A161/A127

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye. O.  
Patona AN USSR (Electric Welding Institute "Order of the Red Banner  
of Labor" im. Ye. O. Paton AS UkrSSR)

SUBMITTED: June 17, 1960

Card 3/3

KHOMUS'KO, F.A.

Surfacing of presses and forging hammer strikers. Avtom.svar. 14  
no.9:93 S '61. (MIRA 14:8)  
(Hard facing)

S/125/62/000/007/008/012  
D040/D113

AUTHORS: Khomus'ko, F.A., and Mints, R.I.

TITLE: The development of a cavitationproof surfacing method

PERIODICAL: Avtomaticheskaya svarka, no. 7, 1962, 81-87

TEXT: The method consists in surfacing plain steel with austenitic nickel-free 30X10G10 (30Kh10G10) steel highly resistant to cavitation. This new steel was developed by I.N. Bogachev and Mints in order to find a steel resistant to the mechanical effect of microimpact; it proved to be the best of all other grades tried in experiments. Experimental surfacing consisted in depositing various steels on plates of Cr.3 (St.3) steel by submerged-arc d.c. welding with reverse polarity, using cold-rolled or cast electrode tape, or powder wire and pumiceous AH-26 (AN-26) flux. Heat-treated 30Kh10G10 specimens last only 5 mg weight in 6 hours in impact-erosion tests; compared to 377, 440 and 610 mg, using 3 other steels; 30Kh10G10 coatings had 7-8 times better cavitation resistance than coatings of other types of metal used for water turbines. 30Kh10G10 coatings with 200 HB resisted cavitation better than 4X13(4Kh13) coatings with 540 HB; the latter have to be quenched, and it is difficult to do this with complex parts, such as turbine blades. The optimum

Card 1/3

S/125/62/000/007/008/012  
D040/D113

The development of a .....

composition for the tape electrode is 0.34% C, 12.16% Mn, 0.31% Si, and 14.00% Cr. The Institut elektrosvariki im. Ye.O. Patona (Electric Welding Institute im. Ye.O. Paton) and the TsKTB of the Odesskiy sovnarkhoz (Odessa Sovnarkhoz) succeeded in producing electrode tape by continuous rolling from liquid metal, and tested the tape in laboratory experiments with pumiceous AN-26, ~~AH~~-28 (AN-28) and ~~AH~~-60 (AN-60) fluxes. Well shaped beads were obtained with 750-800 amp, 28-30 v arc, and 9 m/hr welding speed, and the AN-28 flux proved to be the best. Conclusions: (1) 30Kh10G10 coatings have sufficiently high mechanical and satisfactory technological properties; the steel may be used for bimetal parts operating under conditions promoting cavitation; (2) automatic surfacing technology has been developed; (3) the 30Kh10G10 steel has a high cavitation resistance and ought to be used widely in hydraulic machinery. The life of water turbine blades can be greatly extended by surfacing with this steel, and nickel can be saved. There are 7 figures and 6 tables.

✓

Card 2/3

S/125/62/000/007/008/012  
D040/D113

The development of a .....

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im,  
Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red  
Banner of Labor" im. Ye.O. Paton, AS UkrSSR) (F.A. Khomus'ko);  
Ural'skiy politekhnicheskii institut im. S.M. Kirova (Ural Poly-  
technic Institute im. S.M. Kirov) (R.I. Mints)

SUBMITTED: February 9, 1962

Card 3/3



*KHOMUSKO, F.A.*

PHASE I BOOK EXPLOITATION

SOV/5975

International Institute of Welding

XII kongress Mezhdunarodnogo instituta svarid, 29 iyunya - 5 iyulya 1959 v g.  
Opatii (Twelfth Annual Assembly of the International Institute of Welding,  
Opatija, June 29 - July 5, 1959) Moscow, Mashgiz, 1961. 350 p. 3000  
copies printed.

Sponsoring Agency: Natsional'nyy komitet SSSR po svarke.

Ed. (Title page): G. A. Maslov, Docent; Translated from English, French,  
and Serbo-Croatian by N. S. Aborenkova, K. N. Belyayev, E. P. Bogacheva,  
L. A. Borisova, K. V. Zvegintseva, V. S. Minavichev, and M. M. Shelechnik;  
Managing Ed. for Literature on the Hot-Working of Metals: S. Ya. Golovin,  
Engineer.

PURPOSE: This collection of articles is intended for welding specialists and  
the technical personnel of various production and repair shops.

Card 1/1

27

SOV/5975

Twelfth Annual Assembly (Cont.)

COVERAGE: The collection contains abridged reports presented and discussed at the Twelfth Annual Assembly of the International Institute of Welding. Reports deal with problems of welding and related processes used in repair work, repair techniques, and the problems arising in connection with the nature of the base and filler materials. Examples of repairing various parts are given, and the organization of repair operations in workshops and under field conditions is discussed. Economic aspects of welding and related processes as used in repair work are analyzed. No personalities are mentioned. There are no references.

TABLE OF CONTENTS: [Only Soviet and Soviet-bloc reports are given here]

Foreword

5

PART I. THE STUDY OF REPAIR-WORK TECHNIQUES  
(PROCESSES, METHODS, PREPARATION, HEATING, AND  
OTHER TYPES OF PROCESSING CONTROL)

Myuntsner, L. (Czechoslovakia). Welding of Broken Crankshafts

36

Card 2/9

Twelfth Annual Assembly (Cont.)

SOV/5875

Tesar, A., and Yu. Lombardini (Czechoslovakia). Isothermal and Ultracold Welding of Hardenable Steels	42
Paton, B. Ye., G. Z. Voloshkevich, D. A. Didko, Yu. A. Sterenbogen, A. M. Makara, P. I. Sevbo, and D. O. Rozenberg (USSR). Electroslag Welding in Repairing Heavy Machines and Mechanisms	49
Frumin, I. I., A. Ye. Asnis, L. M. Gutman, G. V. Ksendzyk, V. A. Lapchenko, Ye. I. Leynachuk, Ye. N. Morozovskaya, I. K. Pokhodnya, V. P. Subbotovskiy, and F. A. Khomus'ko (USSR). Automatic Wear-Resistant Submerged-Arc Surfacing	60
Snegon, K. (Poland). Restoration of Rolling-Mill Rolls, Crane Rollers, Forging Dies, and Shears by Arc Welding	72

Card 3/9

11587  
S/125/62/000/011/002/003  
D040/D114

1.2300

AUTHOR: Khomus'ko, F.A.

TITLE: Selecting stainless steel band electrodes for corrosion proof surfacing

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1962, 25-29

TEXT: Experiments are described in which carbon steel was surfaced with stainless steel band electrodes by the submerged-arc process, in order to study the intercrystalline corrosion resistance of coatings produced with a standard cold rolled stainless steel band per ГОСТ 4986-54 (GOST 4986-54) and ТУ ННМ-48 (ТУ ННМ-48) specification. The data include the chemical composition of electrode bands 1X18H9T (1Kh18N9T) with Ti, 1X18H11M3 (1Kh18N11M3) with Mo, 1X18H9B (1Kh18N9B) with Nb, and 1X18H12M3T (1Kh18N12M3T) with Ti and Mo, of the three fluxes AN-26 (AN-26), T-21 (T-21), and AN-28 (AN-28), and details of the surfacing process and corrosion tests: Best coating was obtained with the 1Kh18N9B band containing 0.09% C, 4

Card 1/2

Selecting stainless steel .....

S/125/62/000/011/002/003  
D040/D114

2.00% Mn, 0.57% Si, 19.97% Cr, 9.97% Ni and 1.00% Nb, deposited with AN-26 flux consisting of 30-32% SiO<sub>2</sub>, 5-6.5% CaO, 16-18% MgO, 2.5-3.5% MnO, 20-22% Al<sub>2</sub>O<sub>3</sub>, 20-24% CaF<sub>2</sub>, and 1.5% FeO. However, the slag crust was very difficult to remove. Experiments have to be continued to select the proper flux composition for surfacing with 1Kh18N9B steel. Photomicrographs of coatings are given. There are 3 figures and 4 tables. X

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" im. Ye.O. Paton, AS UkrSSR)

SUBMITTED: March 28, 1962

Card 2/2

KHOMUS'KO, F.A.; MINTS, R.I.

Developing a method of cavitation resistant hard facing. Avtom.  
svar. 15 no.7:81-87 J1 '62 (MIRA 15:7)

1. Ordena Trudovogo Krasnogo Znameni institut elektrosvarki imeni Ye.O  
Patona AN USSR (for Khomus'ko). 2. Ural'skiy politekhnicheskiy  
institut imeni S.M.Kirova (for Mints).  
(Hard facing) (Cavitation)

KHOMUS'KO, F. A.

Selection of a stainless steel electrode ribbon for the deposition of corrosion resistant metals. Avtom. svar. 15 no.11: 25-29 N '62. (MIRA 15:10)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye. O. Patona AN UkrSSR.

(Electrodes) (Hard facing)

KHOMUS'KO, F.A., kand. tekhn. nauk

Improving the technology and equipment for the hard facing of hydraulic turbine blades with a ribbon electrode. [Trudy]LMZ no.11:206-216 '64.  
(MIRA 17:12)

1. Institut elektrosvariki im. Ye.O.Patona AN UkrSSR.



KHOMUS'KO, F.A.

Mechanized hard facing of packing surfaces of high pressure  
feed pump housings. Avtom.svar. 18 no.11:68-71 N '65.

(MIRA 18:12)

1. Institut elektrosvariki im. Ye.O.Patona AN UkrSSR.  
Submitted July 25, 1965.

L 33558-66 EWT(d)/EWT(m)/EWP(v)/I/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c)

ACC NR: AP6012285 (N)JD/HM SOURCE CODE: UR/0125/65/000/011/0068/0071

AUTHOR: Khomus'ko, F. A.

ORG: Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektro-svarki AN UkrSSR)

TITLE: Mechanized welding build-up of the packing surfaces of the housings of high-pressure feedwater pumps

SOURCE: Avtomaticheskaya svarka, no 11, 1965, pp 68-71

TOPIC TAGS: steel, high pressure pump, material fracture, flow stress, metal joining/  
/1Kh18N9B steel, 1Kh18N9T steel, Kh20N9G7T steel, Kh20N10G6 steel, A-913 weld build-up apparatus

ABSTRACT: The high-pressure feedwater pumps of thermoelectric power station boiler-turbine units with steam parameters of up to 300 atm often break down owing to the rupture of the packing joints of their housings, as a result of the defects often inherent in the manual welding of these joints. Hence, the authors investigated the possibility of introducing the mechanized welding of the packing joints and determining the metal composition that is most erosion-resistant. To this end, they also developed corresponding compositions of powder-metal electrode wires. Specimens of

Card 1/3

UDC: 621.791.92:621.6.053

L 33558-66

ACC NR: AP6012285

7  
various alloys were tested for crevice erosion in a flow of condensate (flow rate 121-147 m/sec, temperature 146-177°C) and it was found that, of all the metals investigated, the built-up 1Kh18N9B metal is relatively the most erosion-resistant, the next best metal being 1Kh18N9T. In other words, Cr-Ni steels containing  $\leq 8\%$  Ni are the most resistant to crevice erosion. Thus, further experiments in test rigs showed that the wear of built-up 1Kh18N9T metal is 30-35 times lower than that of the base metal (steel 30). Built-up metals of the Kh20N9G7T and Kh20N10G6 types also are suitable for this purpose. The mechanized build-up itself can be accomplished with the aid of a specially developed device, the A-913 build-up apparatus (Fig. 1). In addition, it

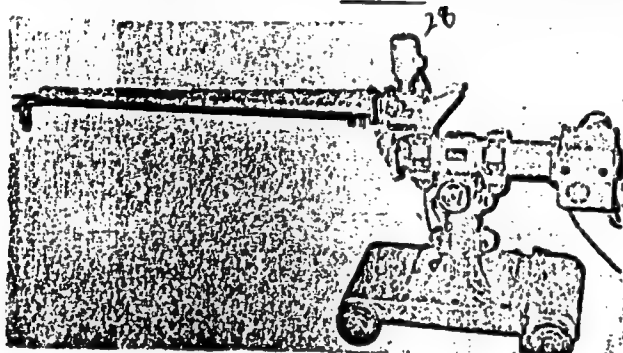


Fig. 1. A-913 build-up apparatus

Card 2/3

AP L 33558-66

ACC NR: AP6012285

was found that the optimal fluxes suitable for this purpose are the AN-20 and the AN-26. On this basis, in 1964 the Suny Pump Plant introduced the automatic build-up of the packing surfaces of the housings of high-pressure feedwater pumps: of the more than 100 housings thus built-up not one has subsequently broken down owing to any rupture of packing surfaces. Orig. art. has: 6 figures, 1 table.

SUB CODE: 11, 13

SUBM DATE: 25Jul65

Cord

3/3

KHOMUTENKO, T.A.

Work of the council of nursery nurses. Med.sestra 17 no.7:47  
J1'58 (MIRA 11:7)

1. Zaveduyushchaya detskim yaslami No.10, Kherson.  
(KHERSON--NURSES AND NURSING)

KHOMUTETS', M.I., tokar'

Making valves for the repair of automatic stock waterers. Mekh. sil'.  
hosp. 11 no.9:10 S '60. (MIRA 13:9)

1. Zhdanovskaya remontno-tehnicheskaya stantsiya, Dnepropetrovskoy  
oblasti.

(Cattle - Watering)

CA K HOMUTETSKAYA M. B.

16

Use of an ionomer in wine analysis. A. S. Pavlov, M.  
R. Khomutetskaia, R. I. Malkina, and N. T. Kostyuk  
(Central Kirovsk. Lab. Ukrainian). *Vinoharstvo i Vino-*  
*gradarstvo S.S.S.R.* 10, No. 6, 43-5 (1950).—Electromet-  
ric pH detns. of wine permit closer technological control of  
fermentation process.  
H. Outfield

Khomutetskaya, R. A.

SUBJECT: USSR/Luminescence

48-3-21/26

AUTHORS: Boganov A.G. and Khomutetskaya R.A.

TITLE: Additional Data on the System of Solid Solutions  $\text{PbTiO}_3$  -  $\text{SrTiO}_3$  (Dopolnitel'nyye svedeniya o sisteme tverdykh rastvorov  $\text{PbTiO}_3$  -  $\text{SrTiO}_3$ )

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya fizicheskaya, 1957, Vol 21, #3, pp 433-438 (USSR)

ABSTRACT: The system of solid solutions of ferroelectrics  $\text{PbTiO}_3$  -  $\text{SrTiO}_3$  was investigated in respect to the temperature-dependence of the following properties: dielectric permittivity,  $\text{tg} \delta$ , coefficient of linear dilatation, piezomodulus, and also dielectric hysteresis loops and values of full polarization and coercive force.

The measurements of dielectric permittivity  $\epsilon$  and tangent of the angle of electric losses  $\text{tg} \delta$  were carried out in a special vacuum installation at a frequency of 5 kilocycles/s. It was found out that compounds containing 65, 70 and 80 % of  $\text{SrTiO}_3$  have very high values of  $\epsilon$ , of the order of  $20 \times 10^3$ .

Card 1/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220011-4

TITLE: Additional Data on the System of Solid Solutions  $\text{PbTiO}_3$  -  $\text{SrTiO}_3$  (Dopolnitel'nyye svedeniya o sisteme tverdykh rastvorov  $\text{PbTiO}_3$  -  $\text{SrTiO}_3$ )

The curves  $\text{tg} \delta(t)$  show a characteristic increase of losses before the Curie point.

Measurements of the relative dilatation of samples were carried out with a mechano-optical dilatometer with the value of its constant equal to 4,600. All samples showed positive spontaneous electrostriction, increasing with the increase of lead titanate content. The value of linear dilatation coefficient for the tetragonal region decreases with increase of lead titanate content from  $9 \times 10^{-6}$  to  $1 \times 10^{-6}$  and is confined in the limits from  $7 \times 10^{-6}$  to  $1 \times 10^{-6}$  for the cubic region.

The rigidity of ferroelectricity rises with the increase of  $\text{PbTiO}_3$  concentration in solid solutions. The curve of the full polarization has a distinctly defined maximum which corresponds to compounds with 70 % to  $\text{SrTiO}_3$ . Its value is equal to  $12 \times 10^{-6}$  CGSU.

The value of piezomodulus decreases from  $1 \times 10^{-6}$  to  $0.5 \times 10^{-6}$  CGSU with the increase of the  $\text{PbTiO}_3$  content.

Card 2/4



BLEYKHER, Izrail' Gevrilovich, inzh.; LISEYEV, Vasilii Pavlovich, inzh.:  
Prinimali uchastiye: KHOMUTETSKIY, A.Ye., inzh.; SPITKOVSKIY,  
L.N., inzh.. BELEVITIN, A.I., inzh., retsenzent; ONISHCHENKO,  
N.P., inzh., red.:

[Compressor units] Kompessornye stantsii. Moskva, Gos.nauchno-  
tekhn.izd-vo mashinostroit.lit-ry, 1959. 323 p. (MIRA 13:4)  
(Air compressors)

*KHOMOUTETSKY N. F.*  
N. KHOMOUTETSKY

V. Shil'kov, B. Vassiliyev, V. Piliavsky, A. Repnikov, N. Leiboshits, J. Roussakov,  
V. Kotchedamov, N. Khomoutetsky, T. Dubiako, A. Petrov, J. Dennisov, L. Medersky, E.  
Gladkova, E. Moskalenko

N. Khomoutetsky, author of "The non-executed project of the Mikhailovsky palace"  
from the book Architectural Inheritance written by the Academy of Architecture of USSR  
and published in Leningrad and Moscow in 1953 by the State Publishing House for Literature  
on Building and Architecture. The book is a history of Russian architecture of the XVIII  
and XIX centuries, a selection of works by Leningrad architects and scientific workers.

KHOMUTETSKIY, N.F.; DAVIDSON, M.G., doktor tekhnicheskikh nauk, nauchnyy redaktor; VLADIMIRSKIY, D.M., redaktor izdatel'stva; GURDZHIYEVA, A.M., tekhnicheskiy redaktor

[Russian architects and builders in the development of construction engineering] Russkie zodchie i stroiteli v razvitii stroitel'noi tekhniki. Leningrad, Ob-vo po rasprostraneniu polit. i nauchnykh znaniy RSFSR, Leningr. otd-nie, 1956. 54 p. (MLBA 10:4)  
(Building--History)

*KHOMUTETSKIY - IV. F.*

Name: KHOMUTETSKIY, Nikolay Fedorovich

Dissertation: Architecture of Russia from the Middle of the 19th Century until 1917 (according to Materials of Moscow and St Petersburg)

Degree: Doc of Fine Arts

Affiliation: Leningrad Engineering-Construction Inst

Defense Date, Place: 13 Jan 56, Council of Inst of History of Fine Arts, Acad Sci USSR

Certification Date: 15 Sep 56

Source: BMVO 6/57

KHOMUTETSKIY, Nikolay Fedorovich, doktor iskusstvovedeniya, prof.; VASIL'-

KOVSKIY, S. V., prof. nauchnyy red. [deceased]; VASIL'YEV, A. V., red.  
APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220011-4  
1zd-ve; GURDZHIYEVA, A.M., tekhn. red.

[Achievements of architecture and construction in the U.S.S.R.] Do-  
stizheniia arkhitektury i stroitel'stva v SSSR. Leningrad, Ob-vo po  
raspr. polit. i nauchn. znanii RSFSR, 1960. 72 p. (MIRA 14:11)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for  
Vasil'kovskiy).

(Architecture)

(Construction industry)

*X Khomutetskii O. K.*

AUTHORS: Isupov, V. A., Khomutetskii, O. K. 57-12-4/19

TITLE: An Investigation of the Dielectric Polarization of the Cadmium Pyroniobate and of Some Solid Solutions on Its Basis (Dielektricheskaya polarizatsiya pironiobata kadmiya i nekotorykh tverdykh rastvorov na yego osnove).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 12, pp. 2704-2717 (USSR)

ABSTRACT: In this paper, the dielectric polarization of polycrystalline samples of cadmium pyroniobate was investigated in strong and in weak electric fields. Moreover, a series of systems of solid solutions on the basis of cadmium pyroniobate was analyzed. The authors tried to establish such a system of solid solutions, which showed a rise of the Curie-temperature in comparison to the pyroniobate. An anomalous dependence of the dielectric polarization of the field strength at temperatures below the Curie-point was discovered. It is shown, that a partial substitution of the  $\text{Cd}^{2+}$ -ions in the cadmium pyroniobate by  $\text{Mg}^{2+}$  -,  $\text{Sr}^{2+}$  -,  $\text{Zn}^{2+}$  -,  $(\text{Na}_{0,5}\text{Bi}_{0,5})^{2+}$ -ions and of the  $\text{Nb}^{5+}$ -ions by  $\text{V}^{5+}$ -

Card 1/4

An Investigation of the Dielectric Polarization of the  
Cadmium Pyroniobate and of Some Solid Solutions on Its Basis.

57-12-4/19

and  $Ti^{4+}$ -ions leads to a decrease of the Curie-temperature. In the case of solid solutions of sodium and magnesium-niobate in cadmium pyroniobate a partial substitution of the  $Cd^{2+}$  - ions by  $Na^{1+}$  - and  $Mg^{2+}$  -ions leads to a splitting of the maximum of the curve of  $\epsilon = f(T)$ , which apparently is connected with the existence of a phase not characteristic for the cadmium pyroniobate in a certain temperature interval. In the case of polycrystalline samples of cadmium pyroniobate below the Curie-temperature and of solid solutions of sodium-niobate in cadmium pyroniobate in the phase with lower temperature an anomalous dependence of the dielectric polarization on the field strength was observed. Such a dependence is the cause of the anomalous character of the temperature dependence of the complete and spontaneous polarization, and of the coercive force. Three possibilities for the explanation of the anomalous character of the hysteresis loops of cadmium pyroniobate are exhibited here, which are based on the following assumptions: The first possibility is based on the assumption of the existence of two types of domains with different energies of fixation,

Card 2/4

An Investigation of the Dielectric Polarization of the Cadmium Pyroniobate and of Some Solid Solutions on Its Basis. 57-12-4/19

the second possibility on the assumption of a "ferroelectricity" of the cadmium pyroniobate and on the assumption, that under a influence of a strong electric field the ferroelectric phase transforms into the seignette-electric one. The third possibility is based on the assumption, that the seignette-electric phase of  $\text{Cd}_2\text{Nb}_2\text{O}_7$ , which exists in the absence of a strong electric field, transforms into the seignette-electric phase with a greater spontaneous polarization on the application of a strong field. Each of these possibilities shows certain deficiencies. The following scientists collaborated in this investigation: Doctor of the Physical-Mathematical Sciences G. A. Smolenskiy, I. G. Ismailzade (X-ray investigations) and A.I. Agranovskaya (technology of the production of samples). There are 13 figures, 1 table, and 7 references, none of which are Slavic.

ASSOCIATION: Institute for Semiconductors AN USSR, Leningrad (Institut Card 3/4 poluprovodnikov AN SSSR Leningrad).

KOZLOV, A.A. KHOMUTSKIY, O.K.

Experimental study of internal overvoltage in streetcar networks.  
Trudy LPI no.242:203-203 '65. (MIRA 18:3)



KHOMUTETSKIY, Yu.N., inzh. (Leningrad)

Basic layouts of the treatment of air and automatic control of  
conditions in printing plants. Vod.i san.tekh. no.11:15-18  
N '62. (MIRA 15:12)  
(Printing plants--Air conditioning)

KHOMUTIN, M. S.

RT-1632 (Production of dichloroethane from chlorine and ethylene (in semi-commercial plant) ). Poluchenie dikhloroetana iz khloro i etilena (na poluzavodskoi ustanovke). TRUDY GOSUDARSTVENNOGO INSTITUTA PRIKLADNOI KHIMII 24: 32-47, 1935

IGNATOVA, T. S.; KHOMUTININA, A. D.

Physicochemical properties of clays from the Troitskiy-  
Baynova deposit. Trudy Vost. inst. ogeup. no.2:26-44 '60.  
(MIRA 16:1)

(Sverdlovsk Province—Fireclay—Testing)

ACC NR: AP6021570

(A)

SOURCE CODE: UR/0131/66/000/003/0005/0008

AUTHOR: Yuzvuk, D. I.; Saparov, V. V.; Khomutina, A. D.; Klyuyev, V. M.

ORG: Bogdanovich Refractories Plant (Bogdanovichskiy ognepornyy zavod)

TITLE: Device for prolonged measurement of the temperature of molten steel

SOURCE: Ogneupory, no. 3, 1966, 5-8

TOPIC TAGS: ~~METALLURGIC FURNACE, MOLTEN METAL,~~  
thermocouple, temperature measurement, high temperature instrument,  
metallurgic research ~~EP-100 potentiometer~~

ABSTRACT: On the basis of blueprints drafted at the Bogdanovich Refractories Plant a device for prolonged continuous measurement of the temperature of molten steel in the hearth furnace has been constructed (Fig. 1) on using a water-cooled immersion thermocouple tipped with a specially prepared mixture of  $ZrO_2$  and SiC which does not interact with molten steel at high temperatures and sheathed in protective refractory liners. The  $ZrO_2$  - SiC tip and refractory liners assure normal performance of the thermocouple for 2-3 hr. The device also includes a holder, a bushing, and a steel tube protecting the thermocouple against impact on immersion in the molten bath. The thermocouple is inserted into the open-hearth fur-

Card 1/3

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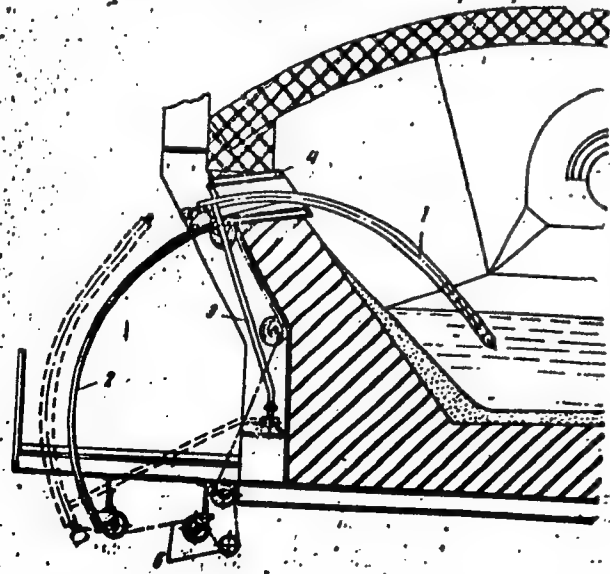


Fig. 1. Stationary device for prolonged continuous measurement of the temperature of molten steel in an open hearth furnace:

- 1 - thermocouple; 2 - directing arc
- 3 - supporting rods; 4 - water-cooled tuyere; 5 - moving mechanism

Card 2/3

ACC NR: AP6021570

nace via a water-cooled tuyere. The temperature of the molten steel is measured by means of W-Mo thermoelectrodes; the thermo-e.m.f. they develop is recorded by means of an EP-120 potentiometer. Operating trials of the device at the Serov and Alapayevsk metallurgical combines, the Serverskiy Tubo Plant and the Nizhne-Saldinskiy metallurgical plants were satisfactory. Orig. art. has: 3 figures.

SUB CODE: 13, 11 / SUBM DATE: none/ ORIG REF: 007

Card 3/3

IGNATOVA, T.S.; KHOMUTININA, A.D.

Elastic expansion of fire clay from certain deposits in the  
Urals. Ogneupory 26 no. 2:86-90 '61. (MIRA 14:2)

1. Vostochnyy institut ogneuporov.  
(Ural mountain region—Fire clay)

YUZVUK, D.I.; SAPAROV, V.V.; KHOMUTININA, A.D.

Ladle brick with chrome-alumina slag. Ogneupory 27 no.9:389-391  
'62. (MIRA 15:8)

1. Bogdanovichskiy ogneupornyy zavod.  
(Firebrick)

YUZVUK, D.I.; PIRAILOV, V.V.; KHOMUTININA, A.D.; ELIYEV, M.F.

New developments at the Bogdanovich refractories plant. Ogneupory  
30 no.5:8-9 '65. (MIRA 18:5)

1. Bogdanovichskiy ogneuporny zavod.



S/068/61/000/007/001/001  
E071/E435

AUTHORS: Rus'yanova, N.D., Gofman, M.V., Gordeyeva, Z.K.,  
Privalov, V.Ye., Zubok, A.M. and Khomutinkin, G.V.

TITLE: Production of High Percentage Phenanthrene

PERIODICAL: Koks i khimiya, 1961, No.7, pp.48-52

TEXT: It was recently established that phenanthrene can be used for the production of diphenic acid (a raw material for high quality plastics and resins) and 9-10 phenanthrene quinone (a valuable fungicide) but a technology for its production on coke-oven by-product plants was not available. The authors carried out an investigation in order to establish the most suitable starting raw material and operating equipment and practice for the production of phenanthrene fraction from which a high percentage (above 90%) phenanthrene can be obtained. As about 80% of phenanthrene in tar is concentrated in the anthracene oil, the latter was considered as the most suitable starting material. Calculations of the necessary column efficiencies for the separation of the pair phenanthrene-carbazole were carried out for a fraction containing 27% of phenanthrene and 2% carbazole (anthracene oil obtained from Card 1/6

S/068/61/000/007/001/001  
E071/E435

Production of High ...

the first anthracene fraction) and for a fraction containing 25% of phenanthrene and 11% of carbazole (a mixture of anthracene oil and the second anthracene fraction). The results indicated that the first type of raw material can be rectified on a column equivalent to 17 theoretical plates into an 80% phenanthrene fraction, while in order to obtain a similar product from the second type of raw material, a column equivalent to 50 theoretical plates would be necessary. Laboratory distillations of the above two raw materials as well as of the first anthracene fraction and raw anthracene were carried out on a column equivalent to 25 theoretical plates. The results of these laboratory distillations showed that the optimum raw material for the production of a concentrated phenanthrene fraction is anthracene oil. The laboratory results were checked on an industrial scale in the by-product plant of the Nizhne-Tagil Metallurgical Combine. A mixture of anthracene oil from the first and second anthracene fractions, containing 24% of phenanthrene, 11% of carbazole and 3% of anthracene was used for the experiments. The oil was washed with a 15% alkali and 25% acid. Rectification of the

Card 2/6

s/068/61/000/007/001/001  
E071/E435

Production of High ...

washed oil (29.5 tons) was done on a column 1 m in diameter with 33 bubble cup trays. The collection of the fractions was done from a side outlet on the 27th plate. During the rectification two fractions were collected: first up to 320°C (a light fraction) and the second, phenanthrene fraction 320 to 345°C (25.5% of the charge). This contained 80% of phenanthrene, 8% of carbazole and 7.7% of anthracene. All together 84.97% of phenanthrene was recovered in the fraction. It is considered that a vacuum distillation would be more suitable. The required efficiency of the column for the separation of the pair phenanthrene-carbazole for a raw material containing 11% of carbazole under various pressures was calculated. On the basis of the above investigations, the following technological scheme for the production of phenanthrene fraction is proposed; anthracene oil washed from phenols and bases is heated in a pipe furnace to 280°C and passed into the first column equivalent to 18 to 20 theoretical plates. The light fraction is collected at the top, while the residue from the bottom is passed into a second column equivalent to 25 to 28 theoretical plates. The phenanthrene fraction is collected

Card 3/6

S/068/61/000/007/001/001  
E071/E435

## Production of High ...

from the top of this column while a part of the residue from the bottom is utilized as a heat carrier, i.e. it is passed into the tube furnace, where it is again preheated and returned to the second column. Both columns operate under a vacuo at 100 mm Hg. The production of high percentage phenanthrene from the phenanthrene fraction was also tested. The fraction contains anthracene, carbazole and various oils (mainly a mixture of methyl homologues of fluorene, phenanthrene and anthracene). Phenanthrene used for further oxidation should be freed from carbazole and resinous substances. It was established that on treatment of phenanthrene fraction with 85% sulphuric acid at 35 to 50°C, phenanthrene is not sulphonated but a carbazole sulphate is obtained which, after separation of the acid layer, can be recovered by dilution of the latter with water (to an acid concentration of 50 to 55%). The treatment removes also resinous substances. This was as follows: the fraction was dissolved in xylene 1:2 or benzene 1:3 and treated with 85% sulphuric acid at 25 to 50°C. The consumption of acid depends on the concentration of carbazole. At a content of 2 to 3%, one

Card 4/6

Production of High ...

S/068/61/000/007/001/001  
EO71/E435


washing with 5 vol.% of sulphuric acid for 15 minutes is sufficient. With a carbazole content of 8 to 10%, 2 to 3 washings, each time with fresh acid, are necessary. After the treatment with sulphuric acid the product usually contained not more than 0.2 to 0.3% of carbazole. After distilling off the solvent and a redistillation of the fraction to remove oils, it was pressed at 100 to 120 atm. A 90 to 92% product, melting at 91 to 93°C with an 80% yield was obtained. The main admixture was anthracene. Some laboratory tests (not described) indicated that the product is suitable for the production of diphenic acid. Under industrial conditions, a product melting at 92 to 94°C was obtained. After a single recrystallization from alcohol (1:5), phenanthrene melting at 99 to 100°C was obtained. There are 1 figure, 6 tables and 13 references: 8 Soviet-bloc and 5 non-Soviet-bloc. The work of L.D.Gluzman (Ref.6: Koks i khimiya, 1959, No.2) is mentioned. The references to English language publications read as follows: R.E.Dean, E.N.White, D.McNeil, J.Appl.Chem., 1953, 3, 10, 469; V.N.Kamat, J.de Sa, F.Fernandes, J.Sci.Ind.Res. 1956, 15, p.8; U.S.Patent 2575314, C.A., 1952, 8152.

Card 5/6

Production of High ...

S/068/61/000/007/001/001  
E071/E435

ASSOCIATIONS: Ural'skiy politekhnicheskiy institut (Ural  
Polytechnical Institute) (Rus'yanova, N.D.,  
Goftman, M.V. and Gordeyeva, Z.K.);  
VUKhIN (Privalov, V.Ye.);  
Nizhne-Tagil'skiy metallurgicheskiy kombinat  
(Nizhne-Tagil Metallurgical Combine) ( Zubok, A.M.  
and Khomutinkin, G.V.)



Card 6/6

KHOMUTINNIKOV, I.M., mayor

Improve the organization of independent training of flying  
personnel. Mor. sbor. 46 no.10:49-53 O '63.

(MIRA 18:12)

KHOMUTINNIKOV, P.S.

TEVEROVSKIY, Ye.N., kandidat khimicheskikh nauk; ZAYTSEV, K.M., inzhener;  
MINYAYEV, Yu.P., inzhener; SKORETSKIY, Yu.A., inzhener; SLASTENKOV,  
G.I., inzhener; KHOMUTINNIKOV, P.S., inzhener.

Purification of elevated-pressure blast-furnace gases. Stal' 15  
no.2:172-179 P '55. (MIRA 8:5)

1. Magnitogorskiy metallurgicheskiy kombinat, NIIOGAZ, Giprogazo-  
ochistka.  
(Blast-furnaces)



KHOMUTINNIKOV, P.S., inzh.; DRONEVICH, Yu.M., inzh.

Design solutions for gas purification installations in ferrous metallurgy plants. Stal' 20 no. 7:660-664 J1 '60. (MIRA 14:5)

1. Giprogazoochistka.

(Metallurgical plants—Design and construction)  
(Gases—Purification)

KHOLUTOV, A.

Help from older friends. Prof. tekhn. obr. 21 no.1:23-24 Ja '64.  
(MIRA 17:3)

1. Zamestitel' nachal'nika Ivanovskogo oblastnogo upravleniya professional'no-tekhnicheskogo obrazovaniya.

*Annotation, P.I.*  
PANKOV, M.I.; RECHMENSKIY, I.N.; KHOMUTOV, A.I.; IVANOVA, G.A.; LYND, A.S.,  
red.; SHCHEPTEVA, T.A., tekhn.red.

[Programs of pedagogical institutes; technology of metals and other materials with practical work in school shops for physics and physics and mathematics faculties] Programmy pedagogicheskikh institutov; tekhnologiya metallov i drugikh materialov s praktikumom v uchebnykh masterskikh dlia fiziko-matematicheskikh fakul'tetov. Spetsial'nost' - fizika i osnovy proizvodstva. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1957. 15 p. (MIRA 11:3)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.  
(Metals)

PANKOV, M.I.; RECHMENSKIY, I.N.; KHOMUTOV, A.I.; IVANOVA, G.A.; LYND, A.S.,  
red.; VOICHENK, V.L., tekhn. red.

[Programs of pedagogical institutes; practical school shop-work  
in the technology of metals and other materials for physics and  
mathematics faculties; major: mathematics and physics] Programmy  
pedagogicheskikh institutov; praktikum v uchebnykh masterskikh s  
elementami tekhnologii metallov i drugih materialov dlia fiziko-  
matematicheskikh fakul'tetov (spetsial'nosti' - matematika i  
fizika). Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR,  
1958. 14 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i  
srednikh pedagogicheskikh uchebnykh zavedeniy.  
(Metals)